

City of Chattanooga, TN
Personnel Class Specification

Class code 0636

FLSA: Non-Exempt

CLASSIFICATION TITLE: PLANT OPERATOR, PRINCIPAL

PURPOSE OF CLASSIFICATION

The purpose of this classification is to assist with management of wastewater treatment plant operations to ensure that operational plans/procedures are properly implemented to meet regulatory requirements, and to perform specialized work associated with operation/maintenance of primary systems, secondary systems, pump stations, computer/operating process control room, and oxygen plant systems.

ESSENTIAL FUNCTIONS

The following duties are normal for this position. These are not to be construed as exclusive or all-inclusive. Other duties may be required and assigned.

Provides direction, guidance and assistance to employees; assigns and evaluates work; provides training as needed.

Coordinates daily work activities; organizes and prioritizes department workload; monitors status of work in progress; inspects completed work.

Performs the duties of Chief Operator in absence of same.

Ensures implementation of operational plans and procedures through continual follow-up; reviews changes in operational plans/procedures with supervisor; communicates operational changes to other operators; identifies new operational tasks to be performed; performs basic troubleshooting on operational changes.

Operates, maintains, and monitors wastewater treatment plant equipment and activities involving de-watering equipment, press and centrifuge operation, oxygen plant, solids disposal, or telemetry systems and process control; assists in operating primary systems, secondary systems, and pump stations; operates plant data acquisition data link computers and analog/digital controllers to execute changes in process.

Monitors and inspects plant equipment and operations for safety, maintenance and proper process operations; makes adjustments as appropriate; reports problem situations.

Operates oxygen plant to produce high purity oxygen for treatment of activated sludge; monitors and maintains the activated sludge process; controls main air compressors and distillation column to produce oxygen gas and liquid; distributes liquid oxygen to storage tanks for backup use and emergency needs; controls valve positions, turbine speed and temperature regulation; analyzes water in cooling tower.

Operates de-watering equipment and/or equalization pump station; adjusts pump speed and flow rates; directs primary effluent flows through flow control gates; collects samples; monitors lubricant levels.

Operates blower building; adjusts air flows and assists with preventive maintenance activities.

Operates return sludge building and related equipment to control UNOX activated sludge process; adjusts return and waste flow rates; checks oil levels and drains condensate in instrument air compressor on de-watering equipment.

Coordinates production of chemically conditioned and stabilized sludge which meets environmental regulations and maintains a level dryness acceptable for landfill disposal; operates centrifuge buildings, filter press and sludge transfer system; analyzes lime slurry solids from tanks and deliveries; analyzes solids concentration blended sludge; calculates chemical doses for lime and ferric chloride; chemically conditions sludge with lime and ferric.

Collects, labels, and transports samples for laboratory analysis; weighs samples and calculates dryness of samples; performs laboratory analysis on conditioned and blended sludge; analyzes solids content for digester, raw influent waste activated sludge; performs a variety of tests to determine the chemical composition of samples; adjusts chemical/process tank levels as necessary.

Monitors treatment plant telemetry systems, including lift stations, overflow sites, storm stations, CSO station, and related systems; monitors/logs alarms, notifying appropriate personnel of alarm situations or making changes as appropriate; monitors and orders power usage on ESP system via computer data link with TVA; monitors TVA phone and initiates emergency shutdown plan in the event of a power curtailment; remotely starts/stops influent pumps by flow demand; starts/stops and adjusts pumping rates to facilitate pumping sludge to de-watering systems; adjusts flow of wastewater through secondary treatment process; maintains balanced flow rates through activated sludge system and secondary clarification; monitors lift stations to minimize down time to eliminate overflows and bypasses.

Monitors graphic display panels for equipment and pump stations comparatively with computer graphic display to verify validity; reviews data received by plant computer and adjusts process controls as appropriate; monitors and calculates process control data for secondary treatment system.

Coordinates communications between appropriate personnel to ensure problem situations receive appropriate attention; notifies appropriate supervisors of problems in their respective areas; initiates maintenance work orders for repair critical equipment.

Performs various tasks related to plant operations, which may include de-watering equipment, collecting water samples for chemical analysis, monitoring/adjusting chemical feeds, inspecting/testing equipment, draining gas traps, checking fire extinguishers, placing clarifiers in/out of service, priming clarivacs, cleaning roto-mat, changing chlorine tanks, adjusting valves, cleaning samplers, cleaning influent wet well, transferring sludge, cleaning digester covers, cleaning bar screens, cleaning scum from channel, cleaning weeds from basins, maintaining basins, cleaning weeds from thickeners and clarifiers, cutting grass/weeds, blowing leaves/debris, and lifting/moving heavy materials.

Operates various machinery, equipment and tools in performance of assigned duties, which may include a utility vehicle, influent pump station, pumps, control panels, air compressor, cooling tower, flow control gates, centrifugal blowers, laboratory equipment, balance, ovens, desiccator, generator, filter press, grit removal system, heat exchanger system, clarifiers, primary clarification system, turbine expander, anaerobic digester, hoist, hydrocarbon detector, dewpoint analyzer, lime slaker, conveyor system, vaporizer, valves, meters, gauges, chemical feeder, weedeater, blower, rake, pitchfork, pick, shovel, testing kits, mechanic tools, and radio communications systems.

Ensures scheduled preventive maintenance activities are performed and properly documented.

Performs general cleaning/maintenance tasks necessary to keep buildings, vehicles, equipment, and tools in operable condition, which may include inspecting equipment, checking fluid levels, replacing fluids, greasing equipment, replacing parts, washing/cleaning equipment, and cleaning shop/work areas; monitors equipment operations to maintain efficiency and safety; reports faulty equipment.

Utilizes precautionary safety equipment and monitors work environment to ensure safety of employees and other individuals.

Maintains inventory of chemicals, supplies, tools and equipment; initiates requests for new or replacement materials.

Takes readings from assorted meters/gauges; reads, interprets and records a variety of data.

Maintains logs and records of test results, meter readings, chemical applications, and other data; changes charts; compiles data and submits reports in compliance with applicable guidelines.

Operates computer systems associated with making work orders, monitoring plant operations, maintaining tank levels, and conducting other work activities; transfers data between computer systems as appropriate; reports hardware/software problems.

Prepares or completes various forms, correspondence, reports, logs, work orders, process control sheets, status reports, weight tickets, and other documents.

Receives various forms, reports, logs, data sheets, delivery tickets, diagrams, manuals, reference materials, or other documentation; reviews, processes, forwards or retains as appropriate.

Communicates with supervisor, employees, other departments, the public, and other individuals as needed to coordinate work activities, review status of work, exchange information, or resolve problems.

Responds to complaints about odors; provides information, researches problems, and initiates problem resolution.

Communicates via telephone and/or two-way radio; provides information and assistance; takes and relays messages or directs calls to appropriate personnel; returns calls as necessary.

ADDITIONAL FUNCTIONS

Provides assistance to other employees or departments as needed.

Performs other related duties as required.

MINIMUM QUALIFICATIONS

High school diploma or GED; supplemented by vocational/technical training in water/wastewater treatment plant operations; supplemented by three (3) years previous experience and/or training involving water/wastewater treatment plant operations; or any equivalent combination of education, training, and experience which provides the requisite knowledge, skills, and abilities for this job. Must possess and maintain valid Grade III Wastewater Treatment Plant Operator Certification. Must possess and maintain a valid Tennessee Driver's License.

PERFORMANCE APTITUDES

Data Utilization: Requires the ability to evaluate, audit, deduce, and/or assess data using established criteria. Includes exercising discretion in determining actual or probable consequences and in referencing such evaluation to identify and select alternatives.

Human Interaction: Requires the ability to apply principles of persuasion and/or influence over others in a supervisory capacity.

Equipment, Machinery, Tools, and Materials Utilization: Requires the ability to operate, maneuver and/or control the actions of equipment, machinery, tools, and/or materials used in performing essential functions.

Verbal Aptitude: Requires the ability to utilize a wide variety of reference, descriptive, and/or advisory data and information.

Mathematical Aptitude: Requires the ability to perform addition, subtraction, multiplication and division; ability to calculate decimals and percentages; may include ability to perform mathematical operations with fractions; may include ability

to compute discount, interest, profit and loss, ratio and proportion; may include ability to calculate surface areas, volumes, weights, and measures.

Functional Reasoning: Requires the ability to apply principles of rational systems; to interpret instructions furnished in written, oral, diagrammatic, or schedule form; and to exercise independent judgment to adopt or modify methods and standards to meet variations in assigned objectives.

Situational Reasoning: Requires the ability to exercise judgment, decisiveness and creativity in situations involving evaluation of information against measurable or verifiable criteria.

ADA COMPLIANCE

Physical Ability: Tasks require the ability to exert moderate, though not constant physical effort, typically involving some combination of climbing and balancing, stooping, kneeling, crouching, and crawling, and which may involve some lifting, carrying, pushing and/or pulling of objects and materials of moderate weight (12-20 pounds).

Sensory Requirements: Some tasks require the ability to perceive and discriminate colors or shades of colors, sounds, odor, depth, texture, and visual cues or signals. Some tasks require the ability to communicate orally.

Environmental Factors: Performance of essential functions may require exposure to adverse environmental conditions, such as dirt, dust, pollen, odors, wetness, humidity, rain, fumes, temperature and noise extremes, machinery, vibrations, electric currents, traffic hazards, toxic agents, disease, or pathogenic substances.

Chattanooga, Tennessee, is an Equal Opportunity Employer. In compliance with the Americans with Disabilities Act, the City will provide reasonable accommodations to qualified individuals with disabilities and encourages both prospective and current employees to discuss potential accommodations with the employer.